Interview Summary	Application No.	Applicant(s)	
	10/039,064	GAIDJIERGIS ET AL.	
	Examiner	Art Unit	
	Patrick Butler	1791	

All participants (applicant, applicant's representative, PTO personnel):

(1) *Patrick Butler*. (3)*Paul Parker*.

(2) *Christina Johnson*. (4)_____.

Date of Interview: *24 January 2008*.

Type: a)☐ Telephonic b)☐ Video Conference
c)☒ Personal [copy given to: 1)☐ applicant 2)☒ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☐ No.
If Yes, brief description: _____.

Claim(s) discussed: *Proposed (see attached)*.

Identification of prior art discussed: *See Continuation Sheet*.

Agreement with respect to the claims f)☐ was reached. g)☐ was not reached. h)☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *See Continuation Sheet*.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Patrick Butler
Examiner's signature, if required

Continuation of Identification of prior art discussed: U.S. Patent No. 3,962,941 (Kober), U.S. Patent No. 4,246,815 (Hugo).

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Proposed Whitehead declaration (see attached) was discussed. Mr. Parker discussed the differences in processing of green and cured fiber-cement materials, Claim 19's fracturing or cured nature would not occur in Kober's green material, and the teachings of Kober are insufficient for punch depth and clearance to be result-effective variables. Examiner Buter and SPE Johnson discussed the Applicant's support for curing panels and the proposed amendments and agreed that Kober appears to teach an uncured filamentary mat. Examiner agreed to consider such when Applicant files next response.

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)
In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

PROPOSED AMENDMENTS TO THE CLAIMS

PROPOSED

1-17. (Canceled)

18. (Previously Presented) The method of claim 19 wherein driving the punches comprises penetrating the punches into the fiber-cement panel along the full length of the fiber-cement panel in one stroke of the punches.

19. (Proposed Amendment) A method of fabricating a fiber-cement soffit, comprising:

providing a fiber-cement panel having a length, a width and a thickness;

placing the fiber-cement panel between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a plurality of holes;

driving the punches at least substantially simultaneously into and through at least a portion of the thickness of the fiber-cement panel ~~to form~~ and forming a plurality of apertures in the fiber-cement panel by fracturing individual portions of the fiber-cement panel and ejecting plugs from the fiber-cement panel through the holes in the support plate; and

wherein the fiber-cement panel has a thickness of approximately 0.25-0.31625 inch, and wherein driving the punches comprises penetrating the punches into the panel to a depth of approximately 0.0625-0.1875 inch without passing the punches completely through the panel.

20. (Previously Presented) The method of claim 19 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by

approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

21. (Previously Presented) The method of claim 19 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-30% of the second diameter of the holes; and;

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

22. (Previously Presented) The method of claim 19 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-40% of a thickness of the fiber-cement panel; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

23. (Canceled)

24. (Previously Presented) The method of claim 25 wherein the fiber-cement panel has a length, a width and a thickness, and wherein driving the punches comprises penetrating the punches into the fiber-cement panel at least substantially simultaneously along the length of the fiber-cement panel.

25. (Proposed Amendment) A method of fabricating a fiber-cement soffit, comprising:

providing a fiber-cement panel having a thickness, and the fiber-cement panel comprising cement, cellulose material, and a binder;

placing the fiber-cement panel between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches coupled

to the punch plate, and the support assembly having a support plate with a plurality of holes;

driving the punches at least substantially simultaneously through at least a portion of the thickness of the fiber-cement panel ~~to form~~ and forming apertures in the fiber-cement panel by fracturing individual portions of the fiber-cement panel and ejecting plugs from the fiber-cement panel through the holes in the support plate;

withdrawing the punches from the fiber-cement panel without delaminating the fiber-cement panel at the apertures; and

wherein the fiber-cement panel has a thickness of approximately 0.25-0.31625 inch, and wherein driving the punches comprises penetrating the punches into the panel to a depth of approximately 0.0625-0.1875 inch without passing the punches completely through the panel.

26. (Previously Presented) The method of claim 25 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

27. (Previously Presented) The method of claim 25 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-30% of the second diameter of the holes; and

driving the punches comprises moving the punches toward the holes and in to the fiber-cement panel until the punches eject the plugs from the panel.

28. (Previously Presented) The method of claim 25 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-40% of a thickness of the fiber-cement panel; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

29. (Previously Presented) The method of claim 25 wherein withdrawing the punches from the fiber-cement panel comprises pressing resilient biasing members against the fiber-cement panel adjacent to at least a subset of the plurality of punches when the punches penetrate into fiber-cement panel.

30. (Previously Presented) The method of claim 25, further comprising:

providing a plurality of biasing elements coupled to the punch assembly, the biasing elements being compressible, resilient members projecting from the punch plate adjacent to a punch; and

withdrawing the punches from the fiber-cement panel by pressing the biasing elements against the fiber-cement panel proximate to at least a subset of the punches as the punches penetrate the fiber-cement panel.

31. (Currently Amended) A method of fabricating a fiber-cement soffit, comprising:

engaging an active drive assembly with the fiber-cement panel, wherein the active drive assembly has a first drive member contacting one surface of the fiber-cement panel and a second drive member opposing the first drive member contacting an opposite surface of the fiber-cement panel;

moving the first and second drive members such that the drive members feed the fiber-cement panel ~~placing a fiber-cement panel~~ between a punch assembly and a support assembly, the punch assembly having a punch plate and a plurality of punches projecting from the punch plate, and the support assembly having a support plate with a plurality of holes; and

forming a plurality of apertures in the fiber-cement panel at least substantially simultaneously by driving the punches at least substantially simultaneously through only a portion of the fiber-cement panel without passing the punches completely through the panel.

32. (Previously Presented) The method of claim 31 wherein the fiber-cement panel has a thickness of approximately 0.25-0.31625 inch, and wherein driving the punches comprises penetrating the punches into the panel to a depth of approximately 0.0625-0.1875 inch without passing the punches completely through the panel.

33. (Original) The method of claim 31 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

34. (Original) The method of claim 31 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding

punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-30% of the second diameter of the holes; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

35. (Original) The method of claim 31 wherein:

the punch assembly includes a flat punch plate and the plurality of punches project from the punch plate, the punches being spaced apart from one another by approximately 0.5-1.0 inch, and the punches having a first end attached to the punch plate, a second end opposite the first end with a concave contact face, and a first diameter of approximately 0.11-0.25 inch;

the support assembly includes a flat support plate and the plurality of holes extend through the support plate, each hole being aligned with a corresponding punch projecting from the punch plate, and the holes having a second diameter of approximately 0.18-0.39 inch to provide a radial punch/hole clearance between the punches and holes of approximately 4%-40% of a thickness of the fiber-cement panel; and

driving the punches comprises moving the punches toward the holes and into the fiber-cement panel until the punches eject the plugs from the panel.

36. (Original) The method of claim 31 wherein withdrawing the punches from the fiber-cement panel comprises pressing resilient biasing members against the fiber-cement panel adjacent to at least a subset of the plurality of punches when the punches penetrate into fiber-cement panel.

37. (Original) The method of claim 31, further comprising:

providing a plurality of biasing elements coupled to the punch assembly, the biasing elements being compressible, resilient members projecting from the punch plate adjacent to a punch; and

withdrawing the punches from the fiber-cement panel by pressing the biasing elements against the fiber-cement panel proximate to at least a subset of the punches as the punches penetrate the fiber-cement panel.

38. (Proposed Amendment) A method of fabricating a fiber-cement soffit, comprising:

providing a fiber-cement panel having a thickness of approximately 0.25-0.625 inch, wherein the fiber-cement panel is in a state in which cutting the fiber-cement panel with a rotating abrasive disk produces dust;

placing a fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled to the punch plate, and the support assembly having a support plate with a plurality of holes; and

driving the punches through at least a portion of the thickness of the fiber-cement panel at least substantially simultaneously to form a plurality of tapered openings in the fiber-cement panel and thereby produce a finished fiber-cement soffit.

39. (Previously Presented) The method of claim 38 wherein driving the punches comprises passing the punches along a punch stroke path to an intermediate depth of the fiber-cement panel without passing the punches completely through the panel and ejecting plugs from the panel in the direction of the punch stroke.

40. (Previously Presented) The method of claim 38 wherein driving the punches comprises passing the punches along a stroke path completely through the fiber-cement panel and ejecting the plugs from the panel in the direction of the punch stroke.

41. (Previously Presented) The method of claim 38 wherein:

the punches are arranged in an array and have a diameter of approximately 0.11-0.25 inch, and the holes are arranged in a corresponding array and have a diameter of approximately 0.18-0.39 inch to provide a radial punch- hole clearance between the punches and the holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches along a punch stroke into the fiber-cement panel until the punches eject plugs from the panel in the direction of the punch stroke.

42. (Previously Presented) A method of fabricating fiber-cement soffit, comprising:

placing a fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches having a first cross-sectional dimension coupled to the punch plate, and the support assembly having a support plate with a plurality of holes having a second cross-sectional dimension larger than the first cross-sectional dimension of the punches; and

driving the punches through at least a portion of the fiber-cement panel at least substantially simultaneously to form a plurality of openings in the fiber-cement panel that have the first dimension of the punches at the first side of the panel and the second dimension of the holes at the second side of the panel.

43. (Previously Presented) The method of claim 42 wherein driving the punches comprises passing the punches along a punch stroke path to an intermediate depth of the fiber-cement panel without passing the punches completely through the panel and ejecting plugs from the panel in the direction of the punch stroke.

44. (Previously Presented) The method of claim 42 wherein driving the punches comprises passing the punches along a stroke path completely through the fiber-cement panel and ejecting the plugs from the panel in the direction of the punch stroke.

45. (Previously Presented) The method of claim 42 wherein:

the punches are arranged in an array and have a diameter of approximately 0.11-0.25 inch, and the holes are arranged in a corresponding array and have a diameter of approximately 0.18-0.39 inch to provide a radial punch-hole clearance between the punches and the holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches along a punch stroke into the fiber-cement panel until the punches eject plugs from the panel in the direction of the punch stroke.

46. (Previously Presented) The method of claim 42 wherein:

a clearance between the holes in the support plate and the punches is approximately between 4%-30% of the second dimension of the holes; and

driving the punches comprises moving the punches along a punch stroke into the fiber-cement panel until the punches eject plugs from the panel in the direction of the punch stroke.

47. (Previously Presented) The method of claim 42 wherein:

a clearance between the holes in the support plate and the punches is approximately between 4%-40% of a thickness of the fiber-cement panel; and

driving the punches comprises moving the punches along a punch stroke into the fiber-cement panel until the punches eject plugs from the panel in the direction of the punch stroke.

48. (Previously Presented) The method of claim 42 wherein:

a clearance between the holes in the support plate and the punches is approximately between 0.04-0.07 inch; and

driving the punches comprises moving the punches along a punch stroke into the fiber-cement panel until the punches eject plugs from the panel in the direction of the punch stroke.

49. (Previously Presented) A method of fabricating fiber-cement soffit, comprising:

providing a fiber-cement panel having a length, a width, and a thickness, wherein the thickness is approximately 0.25-0.625 inch;

placing the fiber-cement panel between a punch assembly and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches having a first cross-sectional dimension coupled to the punch plate, and the support assembly having a support plate with a plurality of holes having a second cross-sectional dimension larger than the first cross-sectional dimension of the punches;

driving the punches along a punch stroke through at least a portion of the thickness of the fiber-cement panel at least substantially simultaneously to form a

plurality of openings in the fiber-cement panel that have the first dimension of the punches at the first side of the panel and the second dimension of the holes at the second side of the panel; and

pressing a compressible biasing element against the first side of the fiber-cement panel as the punches move along the punch stroke.

50. (Previously Presented) The method of claim 49 wherein driving the punches comprises punching holes into the fiber-cement panel along a full length of the panel in one punch stroke.

51. (Previously Presented) The method of claim 49 wherein driving the punches comprises passing the punches completely through the panel.

52. (Previously Presented) The method of claim 49 wherein:

the punches are arranged in an array and have a diameter of approximately 0.11-0.25 inch, and the holes are arranged in a corresponding array and have a diameter of approximately 0.18-0.39 inch to provide a radial punch-hole clearance between the punches and the holes of approximately 0.04-0.07 inch; and

driving the punches comprises moving the punches into the fiber-cement panel to form openings having a dimension at the first side of the panel of approximately 0.11-0.25 inch.

53. (Previously Presented) The method of claim 49 wherein:

a clearance between the holes in the support plate and the punches is approximately between 4%-30% of the second dimension of the holes; and

driving the punches comprises moving the punches into the fiber-cement panel to form openings having a first dimension at the first side of the panel and a

second dimension larger than the first dimension at the second side of the panel.

54. (Previously Presented) The method of claim 49 wherein:

a clearance between the holes in the support plate and the punches is approximately between 4%-40% of a thickness of the fiber-cement panel; and

driving the punches comprises moving the punches into the fiber-cement panel to form openings having a first dimension at the first side of the panel and a second dimension larger than the first dimension at the second side of the panel.

55. (Previously Presented) The method of claim 49 wherein:

a clearance between the holes in the support plate and the punches is approximately between 0.04-0.07 inch; and

driving the punches comprises moving the punches into the fiber-cement panel to form openings having a first dimension at the first side of the panel and a second dimension larger than the first dimension at the second side of the panel.

56-70. (Canceled)

71. (Previously Presented) A method of fabricating fiber-cement soffit, comprising:

placing a fiber-cement panel between a punch assembly positioned in a retracted position and a support assembly so that a first side of the panel faces the punch assembly and a second side of the panel faces the support assembly, the punch assembly having a punch plate and a plurality of punches coupled

thereto, a resilient biasing element attached to at least one of the punches, and the support assembly having a support plate with a plurality of holes therein corresponding to the arrangement of the punches;

driving the punches along a punch stroke against the first side of the fiber-cement panel through at least a portion of the fiber-cement panel to form a plurality of openings therein; and

compressing the resilient biasing element as the punches are driven along the punch stroke.

72. (Previously Presented) The method of claim 71 wherein:

the resilient biasing element includes an end and at least one lateral peripheral surface; and

compressing the resilient biasing element against the first side.

73. (Previously Presented) The method of claim 80:

wherein the resilient biasing element comprises a plurality of resilient biasing elements each of which is attached to one of the punches; and

further comprising retracting the punch assembly with each of the resilient biasing elements being retained on one of the punches.

74. (Previously Presented) The method of claim 80 wherein the resilient biasing element comprises a plurality of resilient biasing elements each of which is attached to one of the punches.

75. (Previously Presented) The method of claim 80 wherein the resilient biasing element has a length that is at least coextensive with a length of one of the punches.

76. (Previously Presented) The method of claim 80 wherein the resilient biasing element comprises a spring.

77. (Previously Presented) The method of claim 80 wherein the resilient biasing element comprises a resilient tube that receives one of the punches.

78. (Previously Presented) The method of claim 77 wherein the resilient biasing element comprises a polymeric resilient member.

79. (Previously Presented) The method of claim 80 wherein the polymeric resilient member comprises rubber.

80. (Previously Presented) The method of claim 71 wherein driving the punches comprises passing the punches along the punch stroke path to an intermediate depth of the fiber-cement panel without passing the punches completely through the panel and ejecting plugs from the panel in the direction of the punch stroke.

81. (Previously Presented) The method of claim 71 wherein driving the punches comprises passing the punches along the stroke path completely through the fiber-cement panel and ejecting the plugs from the panel in the direction of the punch stroke.

PROPOSED

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Gaidjiergis et al.

Application No.: 10/039,064 Confirmation No.: 3578

Filed: January 4, 2002 Art Unit: 1732

For: Methods And Apparatus For Manufacturing Fiber-Cement Soffits With Air Vents Examiner: P. Butler

PROPOSED DECLARATION of JOHN T. WHITEHEAD UNDER 37 C.F.R. § 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, John T. Whitehead, hereby declare and state:

1. I have been a shareholder of PacTool International, Inc. (PacTool) since 1994 and am currently a Vice President and the Director of Research and Development of PacTool. As a shareholder of PacTool, I have been involved with the fiber-cement industry since 1994, and I have been directly aware of the devices and processes disclosed in U.S. Patent Application No. 10/039,064.

2. I have 34 years of experience building and maintaining machines that cut, punch, fold and paste paper products, and I have approximately 14 years of experience designing, building, testing and/or maintaining machines related to cutting and punching cured fiber-cement boards and panels.

3. PacTool International has developed machines and processes for cutting cured and primed fiber-cement boards and panels to produce fiber-cement soffit coated with a primer.

4. James Hardie Building Products, Inc. (Hardie) determined that drilling holes through cured fiber-cement panels was not a viable option for producing finished soffit from cured fiber-cement panels. To the best of my knowledge, Hardie subsequently asked PacTool to design and develop equipment and processes to produce soffit with vent holes from cured and primed fiber-cement panels.

5. The fiber-cement panels used in the claimed processes are fully cured and primed to remove water from the panels before producing soffit because, as we understood from Hardie, coating fiber-cement material with primer after forming the vent holes would often result in the vent holes being obstructed or even fully blocked by the primer. Therefore, the moisture content of the fiber-cement panels used in the claimed processes must be low enough to accept a primer coating. Additionally, to work in the claimed processes, the fiber-cement panels must have a low moisture content and be dimensionally stable so that an active drive mechanism, such as rollers and/or belts, can directly engage and drive the fiber-cement panels over the surface of the support in which the die holes are located. The moisture content of the fiber-cement panels from which fiber-cement soffit is made in accordance with the claimed processes is such that drilling the panels or cutting the panels with a rotating abrasive disk produces dust.

6. The active drive mechanisms used to drive the cured fiber-cement panels through the punches/dies in the claimed processes are not suitable for directly engaging filamentary mats with hydraulic binders because the active drive mechanisms would deform the filamentary mats and would not be able to accurately position the filamentary mats between the punches and dies.

7. Because the cured fiber-cements panels used in the claimed processes can be driven directly by active drive mechanisms, they are not supported by a separate tray that moves with the fiber-cement panels through the punching tool.

8. U.S. Patent No. 3,962,941 issued to Kober (Kober) teaches punching holes through a filamentary mat 3 with a hydraulic binder. A person skilled in the art would understand that Kober's filamentary mat 3 is uncured, and therefore limp, such that Kober's mat 3 must be supported by a moving tray 7 to maintain the shape of the mat 3. More specifically, because the moisture content of Kober's filamentary mat 3 is sufficiently high to require a vacuum pump 27 to remove the liquid expressed from the hydraulic binder and the fiber forming

the mat 3 during punching, and also because the filamentary material of Kober's mats 3 can extrude between the holes in the trays and the tubes of the dies as noted at column 2, lines 17-26 and 58-64, Kober's mats 3 are accordingly limp and deformable.

9. A person skilled in the art would understand that Kober's filamentary mat 3 cannot adequately support itself on the upstanding tubes 18 of the lower platen 5 that define the dies without using Kober's tray 7. More specifically, without the tray 7, Kober's filamentary mat 3 would deform during the punching process.

10. A person skilled in the art would further understand that the punches 10 disclosed in Kober need to pass completely through Kober's mat 3 because passing the punches 10 through only a portion of the thickness of Kober's mat 3 would not form holes through the mat 3. To the best of my knowledge, if the punches 10 disclosed in Kober did not pass completely through the mat 3, then the waste material would not be fully ejected from the mats 3. More specifically, Kober inherently requires the punches 10 to pass completely through the mats 3 because (a) the material of Kober's mat 3 would be compressed and effectively extruded into the tubes 18 without being ejected if the punches 10 did not pass completely through the mats 3, (b) there is a small notch in Kober's anvil strip 26 that receives the trimming blades 25 such that the punches 10 pass through the openings 17 in the tray 7 and reach the top of the bores 11 of Kober's tubes 18, and (c) the last element of claim 1 of Kober requires pressing the punch pins through the mat, through the holes in the tray that supports the mat, and into the apertures of the dies. Additionally, to eject waste material through the bores 11 of Kober's tubes 18, the downwardly flaring passages 19 require that the punches 10 pass completely through the filamentary mat 3. More specifically, because the filamentary mats 3 compress under the punches 10, the waste material will expand as it enters the flared passages 19. A person skilled in the art would understand that Kober's waste material would clog the flared passages 19 if Kober's punches 10 did not pass completely through the filamentary mats 3. As such, because Kober inherently requires the punches to pass completely through the mats 3 for effective operation of Kober's process, a person of ordinary skill in the art would understand that the intermediate length of the claimed punch stroke is not merely an optimization or design choice in Kober, and a person of ordinary skill in the art would not modify Kober to use the claimed stroke lengths of the punches.

11. The diameter of the punches 10 disclosed in Kober and the diameter at the top of the bores 11 in the tubes 18 (also called nipples 18) must be equal to or substantially equal to each other as Kober teaches at column 2, lines 2-5, and column 3, lines 32-35. Based on (a) my understanding of Kober's filamentary mat 3, (b) the punching of uncured fiber-cement boards, and (c) shearing other wood-fiber materials (i.e., paper), if Kober used the claimed punch/die-hole clearances, then fibers from Kober's filamentary mat 3 would likely be pulled into the bores 11 of the tubes 18. Such "fiber pull" into the bores 11 would result in jagged or fuzzy edges around the holes at the backside of the mats 3. The pulled fiber may also curl or spring back into the holes formed in the mat 3 as the mat 3 is lifted from the lower platen 5. A person skilled in the art would accordingly not modify the close punch/die-hole tolerance taught by Kober to come up with the claimed punch/die-hole clearances. Therefore, the claimed diameters of the punches and the die-holes are not merely an optimization or design choice that could be implemented for Kober's device.

12. Kober's mats 3 would be marred if biasing elements were pressed against the upper surface of the mats 3 during the punching process. More specifically, Kober teaches that the filamentary mats 3 are sufficiently deformable to extrude through the spaces between the openings of the tray and the tubes projecting from the lower platen. As such, Kober's filamentary mats 3 are sufficiently deformable that biasing elements pressing into the mats would mar the surfaces of the mats 3 and leave ring-shaped depressions around the holes.

13. The claimed processes produce finished fiber-cement soffit in which the fiber-cement panels are ready to be packaged and/or shipped for sale. Kober's process does not produce a finished product because Kober's filamentary mat 3 must be cured after the punching process to remove the excess moisture and harden the mats 3.

14. Based on my understanding of Kober, my experience with punching cured fiber-cements panels to produce finished fiber-cement soffit, and my experience with other wood-fiber products (i.e., paper), Kober's device and process would not be suitable for punching vent holes in fiber-cement panels that are in a state in which cutting the fiber-cement panels with a rotating abrasive disk would create dust (i.e., a cured state that is primed or ready to receive a coating of primer). First, for the reasons explained above in paragraph 11, Kober teaches and effectively requires a close tolerance between the diameter of Kober's punches 10 and the

diameter of Kober's bores 11 that would not work for punching vent holes in cured fiber-cement panels to form finished soffit because such tight tolerances significantly increase the amount of force required to punch the vent holes in cured fiber-cement, which in turn causes significant wear and/or breakage of the punches. Second, as explained above in paragraph 10, a person skilled in the art would further understand that Kober teaches and requires the punches 10 pass completely through Kober's mat 3, which causes delamination problems in cured fiber-cement panels. Additionally, a person of ordinary skill in the art would not modify Kober to have the claimed punch/die-hole clearances and/or the claimed punch stroke lengths for the reasons explained above in paragraphs 10 and 11.

15. A person skilled in the art would not punch vent holes in the cured boards taught in U.S. Patent No. 4,580,374 issued to Quinnell (Quinnell) using the device and process taught in Kober because the close punch/die-hole clearances required by Kober and the full punch stroke length also required by Kober are not suited for punching holes through cured fiber-cement boards or panels as explained above in paragraph 14.

16. I further declare that all statements herein made of my own knowledge are true, and that statements made on information or belief are believed to be true; and further, that the statements are made with the knowledge that the making of willful or false statements or the like is punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and may jeopardize the validity of any patent issuing from this patent application.

_____ _____

John T. Whitehead Date